

IN THE DRAWINGS

Applicant has amended the drawings to be consecutively numbered in accordance with 37 C.F.R. 1.84(u)(2). Applicant has attached a clean set of drawings in Appendix C and an annotated version of the drawings in Appendix D. Please substitute the drawings in Appendix C for the drawings previously submitted.

REMARKS

Claims 1-10 have previously been canceled. Examiner stated in the Office Action that Claims 11-18 are pending. However, Applicant had added Claims 11-20 in the Preliminary Amendment filed on June 30, 2004. Examiner has not stated any reasons why Claims 19 and 20 were not entered. Therefore, Applicant regards Claims 19-20 as currently pending, along with Claims 11-18. Claims 11-20 are currently amended. For Examiner's convenience, a clean copy of all pending claims is attached as Appendix G.

Examiner stated that Applicant had failed to refer to Appendix A in the Preliminary Amendment. Applicant has checked and confirmed that the Preliminary Amendment filed on June 30, 2004 did specifically refer to Appendix A (See e.g., page 2 of the Preliminary Amendment), and that all Appendices were duly filed along with the remarks.

In summary, Applicant is submitting the present response together with the following Appendices:

1. Appendix A, marked-up copy of the specification;
2. Appendix B, clean version of the specification;
3. Appendix C, clean copy of the replacement drawings;
4. Appendix D, annotated copy of the replacement drawings;
5. Appendix E, clean copy of the Abstract;
6. Appendix F, mark-up copy of the Abstract; and
7. Appendix G, clean copy of the pending claims.

In the drawings:

In accordance with 37 C. F. R. 1.121, Applicant has labeled each page of the drawings and has attached both a clean copy (Appendix C) and an annotated copy (Appendix D) of drawings. Although 37 C.F.R. 1.121 does not require Applicant to submit annotated sheets unless Examiner requests them, Applicant is now submitting an annotated copy as requested by Examiner. All changes presented relate to the numbering of components in the system. No new matter has been introduced by the amendments.

In the specification:

In response to Examiner's rejection on the grounds of new matter, Applicant has amended the Specification to read "the location means includes a bell crank that is..." (See lines 11-12, page 2 of Appendix B). Applicant believes that this amendment should overcome the new matter rejection. Various amendments have also been made in the specification. Since the previous amendments have not been approved by Examiner, Applicant hereby submits both a clean copy of a substitute specification (Appendix B) and a mark-up version (Appendix A) showing all the changes made with respect to the international application. The substitute specification contained in Appendix B does not contain any new matters.

In the abstract:

Examiner raised objection to the Abstract because of missing pages between the Abstract and the Remarks. Applicant notes that in the Appendix A submitted on June 30, 2004, the Specification ends on page 8 and the Abstract commences on page 11. Pages 9 and 10 were left out pursuant to 37 C.F.R. 1.121b(3), because no claims should be included in the substitute specification. Applicant has now removed the Abstract from Appendices A and B and has also attached a clean copy of the Abstract in Appendix E and a mark-up copy of the Abstract in Appendix F.

Claim Rejections under 35 U. S. C. 112

Claims 11-20 are pending in the application. Claims 11-18 stand rejected under 35 U. S. C. 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11-20 have been amended according to Examiner's recommendation with one exception. Examiner has suggested that Applicant change the last part of Claim 11 to "...another arm of the bell crank and the platform." Applicant respectfully disagrees and maintains that no changes should be made in order to be consistent with the specification which describes the bell crank as having two arms by referring to them as "one" and "the other" (See e.g., lines 11-15, page 2, and lines 15-16, page 3 of the amended specification in Appendix B, "[i]n the preferred embodiment one arm of each bell crank is longer than the other arm."). The claims as amended in their present form have clearly pointed out and distinctly claimed the subject matter which Applicant regards as the invention. Withdrawal of the rejection is respectfully requested.

Applicant believes that the amendments submitted have overcome the rejections and objections raised by Examiner and is respectfully seeking allowance of all the pending claims. No fees are due in connection with this response; however, if any fee is deemed necessary, the Commissioner is hereby authorized to charge Deposit Account 12-0600.

If questions arise in connection with this amendment, the Examiner is encouraged to telephone the undersigned attorney.

Respectfully submitted:

LATHROP & GAGE LC

Date: 12/15/05

A handwritten signature in black ink, appearing to read 'Dan Cleveland', is written over a horizontal line.

Dan Cleveland, Reg. No. 36106
4845 Pearl East Circle, Suit 300
Boulder, Colorado 80301
Tel: (720) 931-3012
Fax: (720) 931-3001

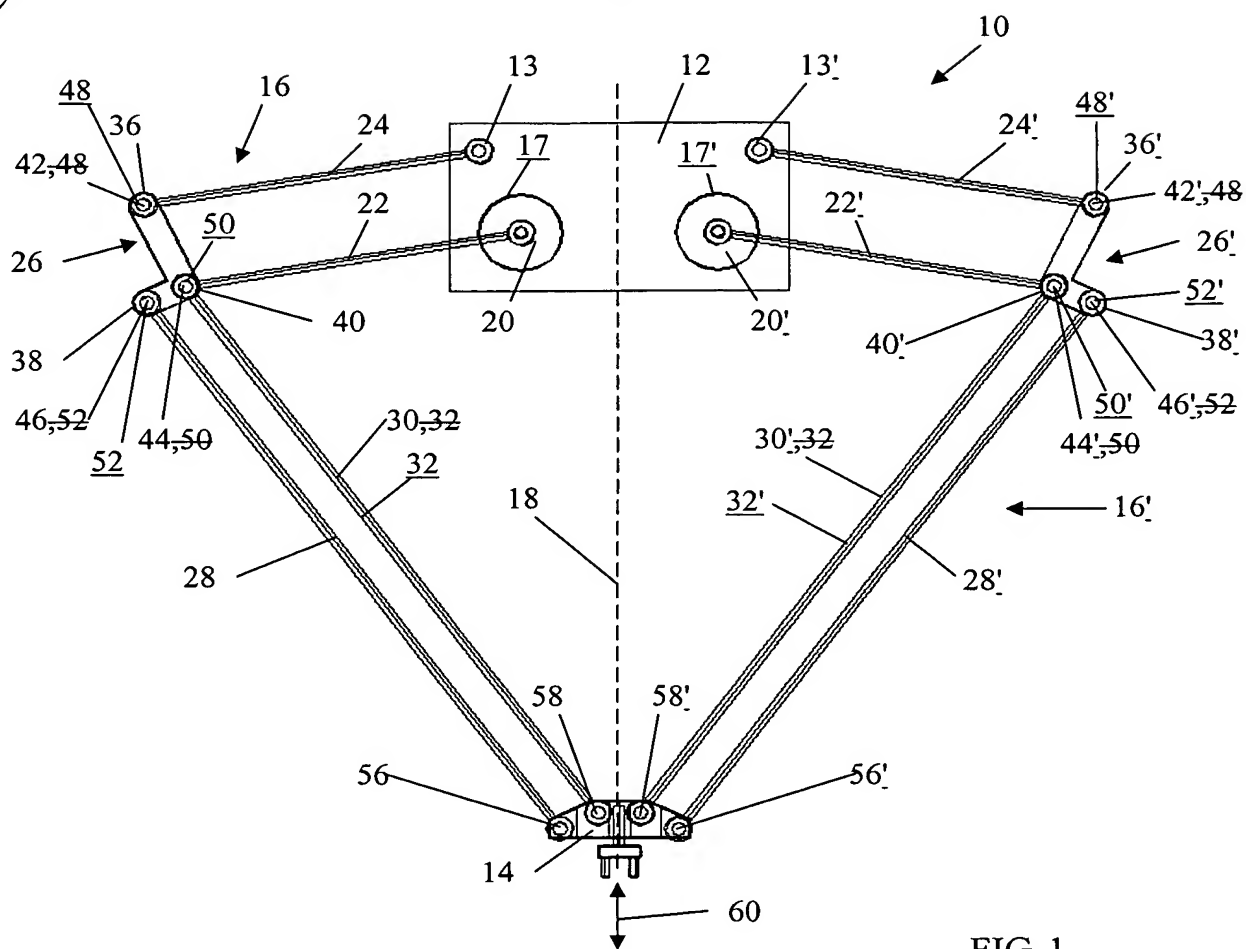


FIG. 1

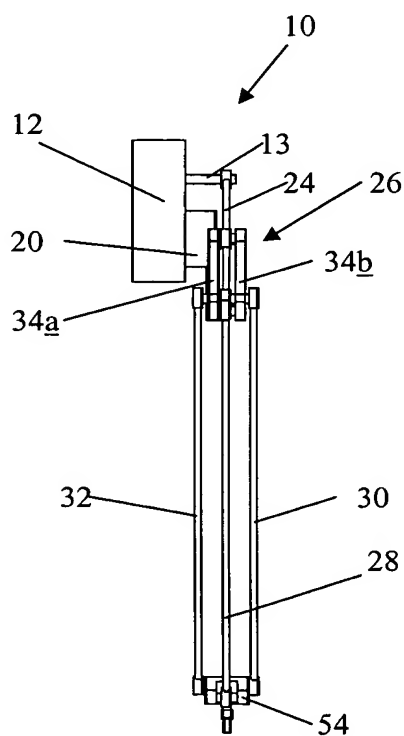


FIG. 2

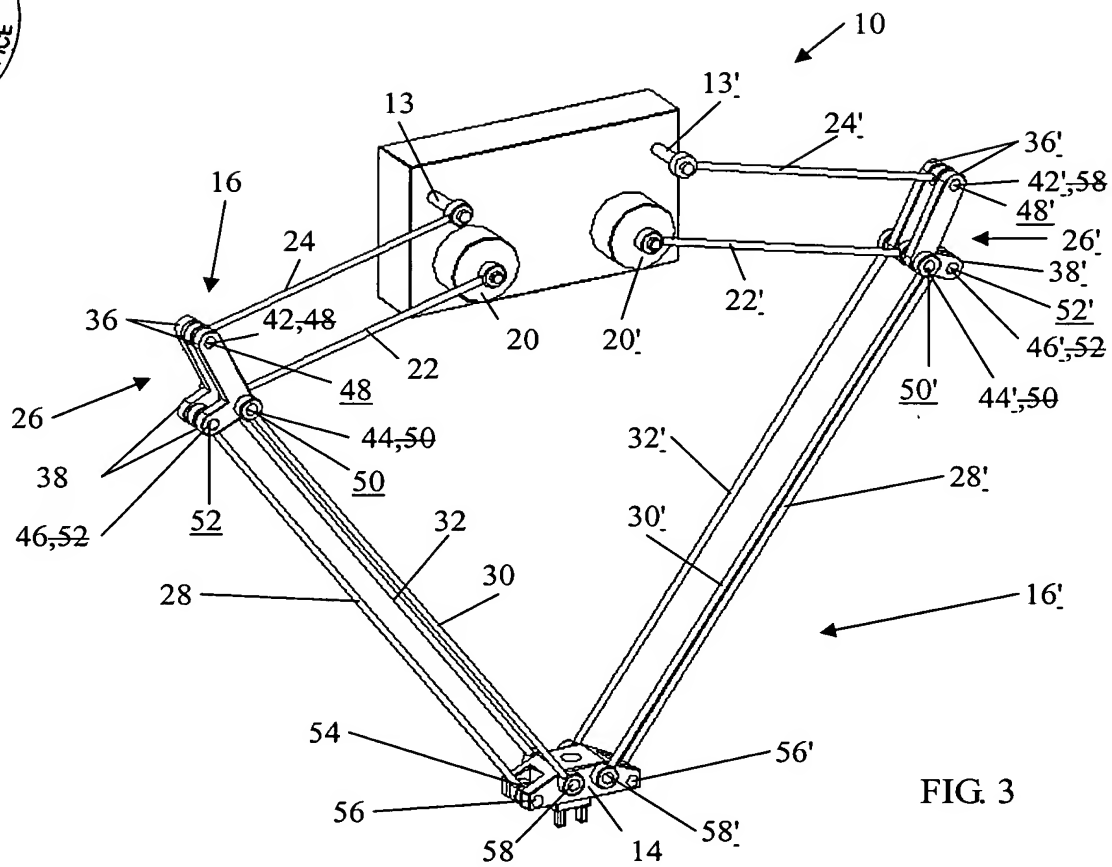


FIG. 3

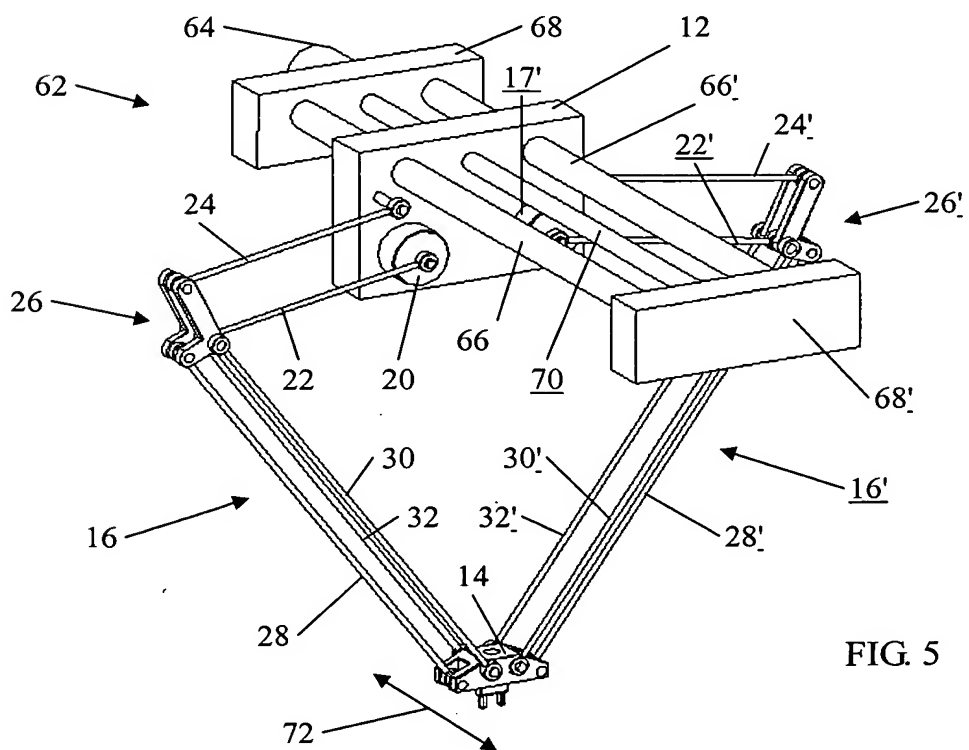


FIG. 5

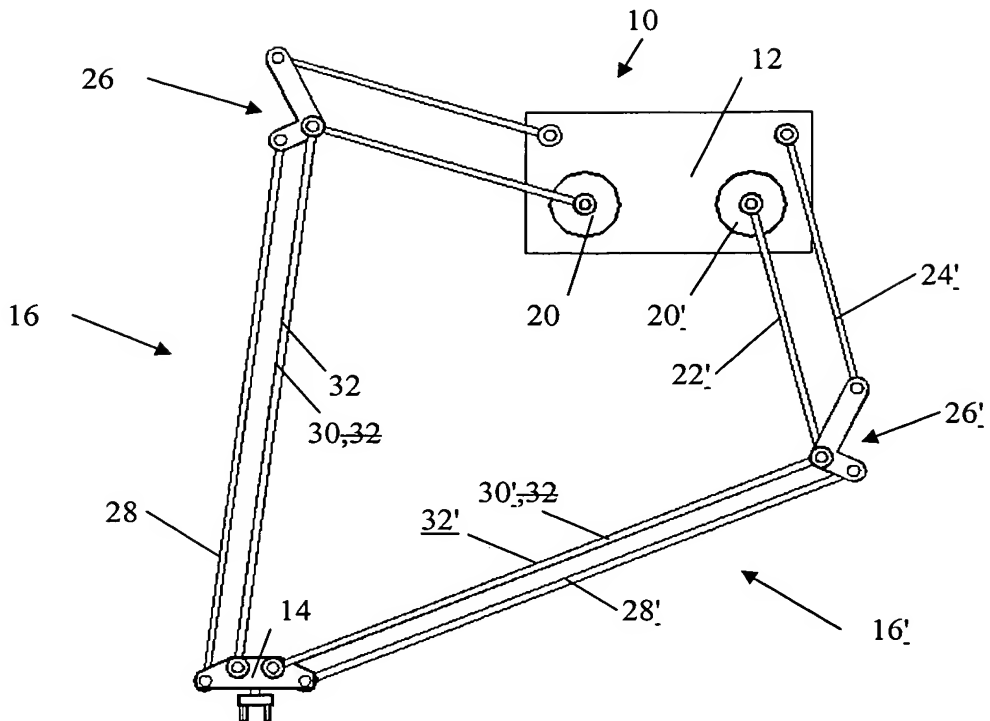


FIG. 4a

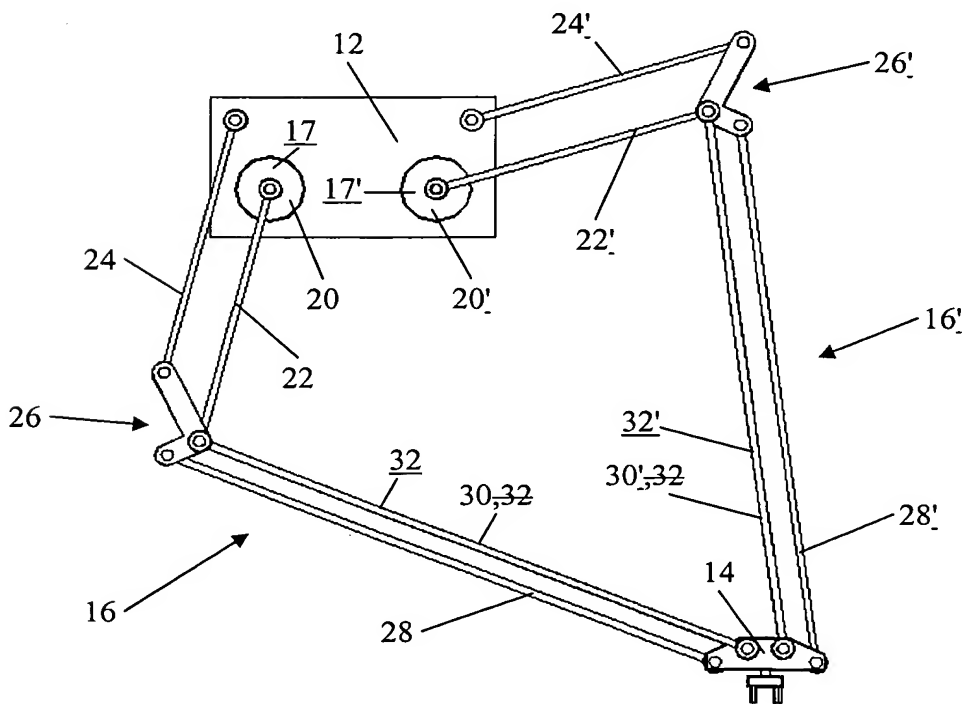


FIG. 4b

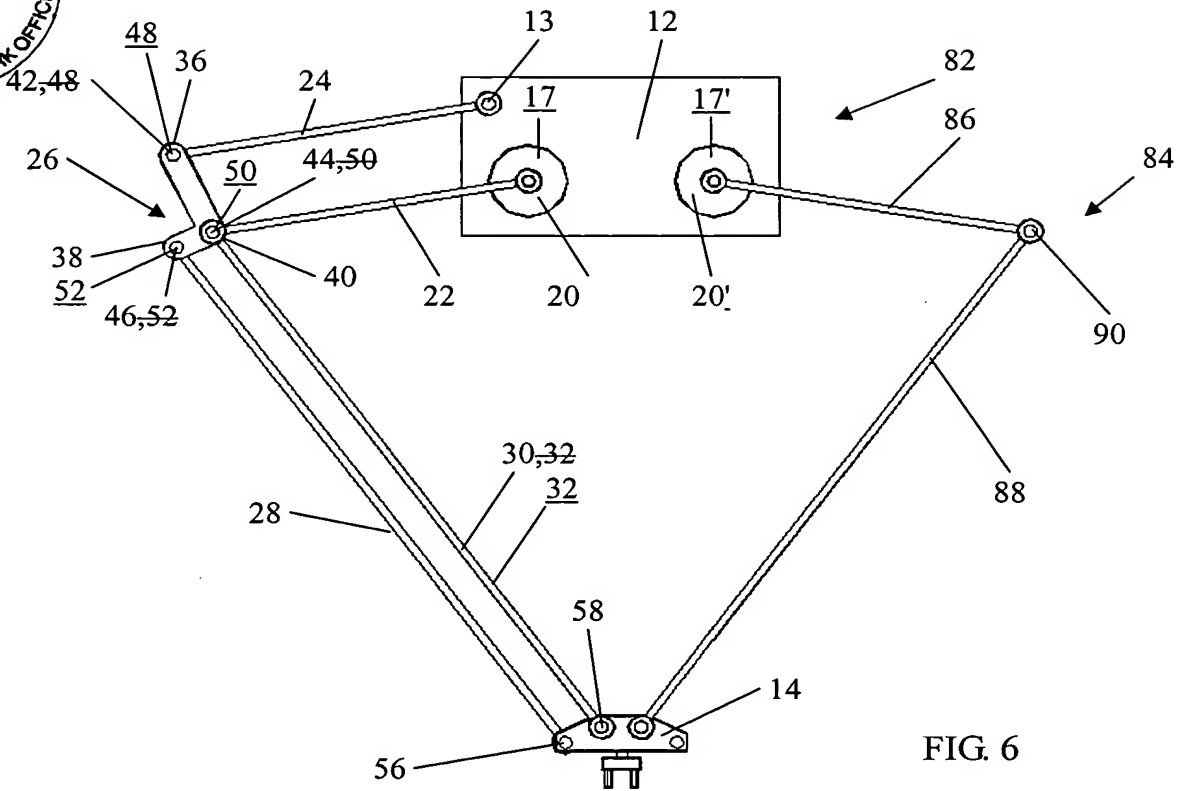


FIG. 6

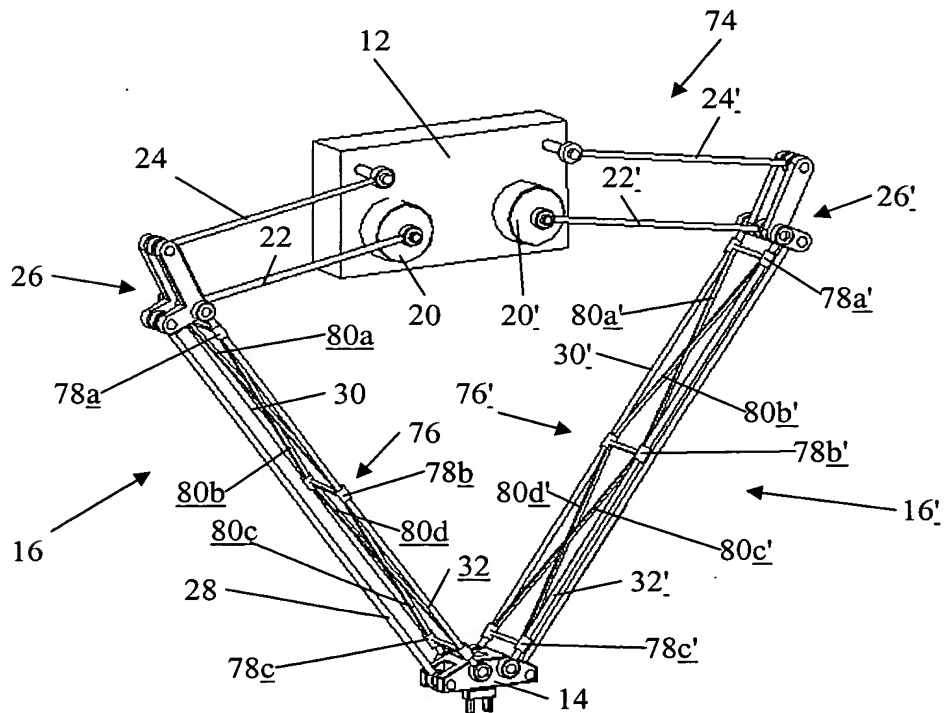


FIG. 7

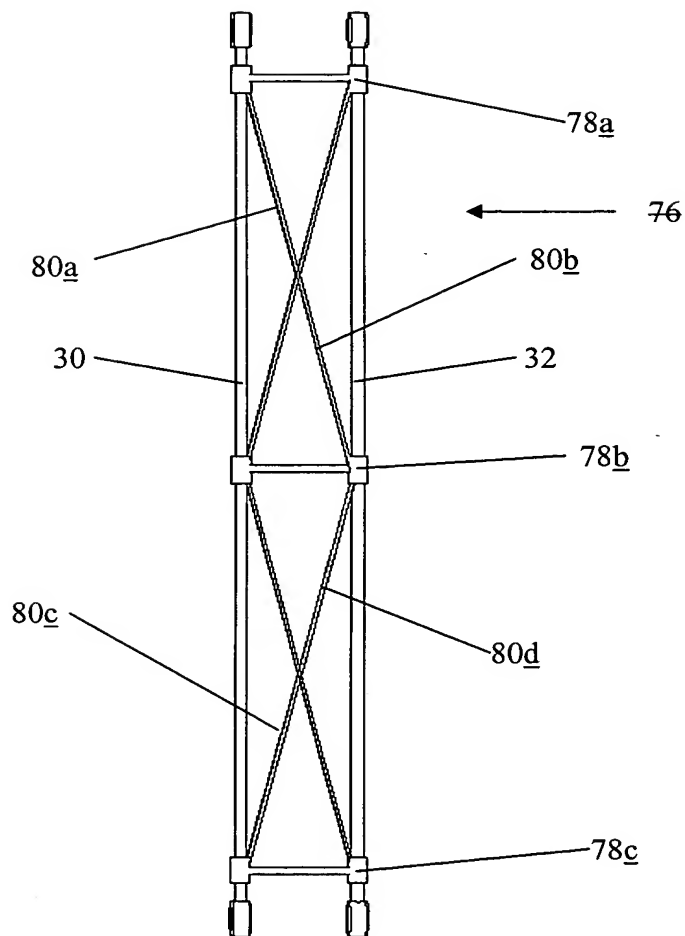


FIG. 8

Appendix F

ABSTRACT

A linkage mechanism for a pick and place robot includes two rotatable drive members (20) mounted on a base (12) and connected to a platform (14) by a respective two element linkage (22,30). The mid point of the two element linkage has a bell crank (26), the arms of which are connected to first and second location links (24,28) anchored respectively at the base and platform. The platform may be configured to carry various implements, and the mechanism permits movement thereof in two dimensions by selective motion of the drive members (20).